



099-US1.ST25.txt

SEQUENCE LISTING

<110> Quark Biotech, Inc.
Byk, Tamara
Chajut, Ayelet

<120> sFRP1 and Uses Thereof

<130> 69222-A; 099/US1

<160> 2

<170> PatentIn version 3.2

<210> 1

<211> 4469

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (303)..(1244)

<400> 1

cctgcagcct ccggagtcag tgccgcgcgc ccgccgcccc gcgccttctt gctcgcgcga 60

cctccgggag ccggggcgca cccagccgcg agcgccgcct ccccgccgcg gccgcctccg 120

accgcaggcc gagggccgcc actggccggg gggaccgggc agcagcttgc ggccgcggag 180

ccgggcaacg ctggggactg cgccttttgt ccccgagagt ccctggaagt ttgcggcagg 240

acgcgcgcgc ggaggcggcg gaggcagccc cgacgtcgcg gagaacaggg cgcagagccg 300

gc atg ggc atc ggg cgc agc gag ggg ggc cgc cgc ggg gcc ctg ggc 347
Met Gly Ile Gly Arg Ser Glu Gly Gly Arg Arg Gly Ala Leu Gly
1 5 10 15

gtg ctg ctg gcg ctg ggc gcg gcg ctt ctg gcc gtg ggc tcg gcc agc 395
Val Leu Leu Ala Leu Gly Ala Ala Leu Leu Ala Val Gly Ser Ala Ser
20 25 30

gag tac gac tac gtg agc ttc cag tcg gac atc ggc ccg tac cag agc 443
Glu Tyr Asp Tyr Val Ser Phe Gln Ser Asp Ile Gly Pro Tyr Gln Ser
35 40 45

ggg cgc ttc tac acc aag cca cct cag tgc gtg gac atc ccc gcg gac 491
Gly Arg Phe Tyr Thr Lys Pro Pro Gln Cys Val Asp Ile Pro Ala Asp
50 55 60

ctg cgg ctg tgc cac aac gtg ggc tac aag aag atg gtg ctg ccc aac 539
Leu Arg Leu Cys His Asn Val Gly Tyr Lys Lys Met Val Leu Pro Asn
65 70 75

ctg ctg gag cac gag acc atg gcg gag gtg aag cag cag gcc agc agc 587
Leu Leu Glu His Glu Thr Met Ala Glu Val Lys Gln Gln Ala Ser Ser
80 85 90 95

099-US1.ST25.txt

tgg gtg ccc ctg ctc aac aag aac tgc cac gcc ggg acc cag gtc ttc	635
Trp Val Pro Leu Leu Asn Lys Asn Cys His Ala Gly Thr Gln Val Phe	
100 105 110	
ctc tgc tcg ctc ttc gcg ccc gtc tgc ctg gac cgg ccc atc tac ccg	683
Leu Cys Ser Leu Phe Ala Pro Val Cys Leu Asp Arg Pro Ile Tyr Pro	
115 120 125	
tgt cgc tgg ctc tgc gag gcc gtg cgc gac tcg tgc gag ccg gtc atg	731
Cys Arg Trp Leu Cys Glu Ala Val Arg Asp Ser Cys Glu Pro Val Met	
130 135 140	
cag ttc ttc ggc ttc tac tgg ccc gag atg ctt aag tgt gac aag ttc	779
Gln Phe Phe Gly Phe Tyr Trp Pro Glu Met Leu Lys Cys Asp Lys Phe	
145 150 155	
ccg gag ggg gac gtc tgc atc gcc atg acg ccg ccc aat gcc acc gaa	827
Pro Glu Gly Asp Val Cys Ile Ala Met Thr Pro Pro Asn Ala Thr Glu	
160 165 170 175	
gcc tcc aag ccc caa ggc aca acg gtg tgt cct ccc tgt gac aac gag	875
Ala Ser Lys Pro Gln Gly Thr Thr Val Cys Pro Pro Cys Asp Asn Glu	
180 185 190	
ttg aaa tct gag gcc atc att gaa cat ctc tgt gcc agc gag ttt gca	923
Leu Lys Ser Glu Ala Ile Ile Glu His Leu Cys Ala Ser Glu Phe Ala	
195 200 205	
ctg agg atg aaa ata aaa gaa gtg aaa aaa gaa aat ggc gac aag aag	971
Leu Arg Met Lys Ile Lys Glu Val Lys Lys Glu Asn Gly Asp Lys Lys	
210 215 220	
att gtc ccc aag aag aag aag ccc ctg aag ttg ggg ccc atc aag aag	1019
Ile Val Pro Lys Lys Lys Lys Pro Leu Lys Leu Gly Pro Ile Lys Lys	
225 230 235	
aag gac ctg aag aag ctt gtg ctg tac ctg aag aat ggg gct gac tgt	1067
Lys Asp Leu Lys Lys Leu Val Leu Tyr Leu Lys Asn Gly Ala Asp Cys	
240 245 250 255	
ccc tgc cac cag ctg gac aac ctc agc cac cac ttc ctc atc atg ggc	1115
Pro Cys His Gln Leu Asp Asn Leu Ser His His Phe Leu Ile Met Gly	
260 265 270	
cgc aag gtg aag agc cag tac ttg ctg acg gcc atc cac aag tgg gac	1163
Arg Lys Val Lys Ser Gln Tyr Leu Leu Thr Ala Ile His Lys Trp Asp	
275 280 285	
aag aaa aac aag gag ttc aaa aac ttc atg aag aaa atg aaa aac cat	1211
Lys Lys Asn Lys Glu Phe Lys Asn Phe Met Lys Lys Met Lys Asn His	
290 295 300	
gag tgc ccc acc ttt cag tcc gtg ttt aag tga ttctcccggg ggcaggggtgg	1264
Glu Cys Pro Thr Phe Gln Ser Val Phe Lys	
305 310	
ggaggggagcc tcgggtgggg tgggagcggg ggggacagtg cccgggaacc cgtgggtcaca	1324
cacacgcact gccctgtcag tagtggacat tgtaatccag tcggcttgtt cttgcagcat	1384

099-US1.ST25.txt

tcccgcctccc	tttccctcca	tagccacgct	ccaaacccca	gggtagccat	ggccgggtaa	1444
agcaagggcc	atttagatta	ggaaggtttt	taagatccgc	aatgtggagc	agcagccact	1504
gcacaggagg	aggtgacaaa	ccattttcaa	cagcaacaca	gccactaaaa	cacaaaaagg	1564
gggattgggc	ggaaagtgag	agccagcagc	aaaaactaca	ttttgcaact	tgttgggtgtg	1624
gatctattgg	ctgatctatg	cctttcaact	agaaaattct	aatgattggc	aagtcacggt	1684
gttttcagggt	ccagagtagt	ttctttctgt	ctgcttttaa	tggaacacaga	ctcataccac	1744
acttacaatt	aaggtcaagc	ccagaaagtg	ataagtgcag	ggaggaaaaag	tgcaagtcca	1804
ttatctaata	gtgacagcaa	agggaccagg	ggagaggcat	tgcccttctct	gccacagtc	1864
tttcogtggtg	attgtctttg	aatctgaatc	agccagtctc	agatgccccca	aagtttcggt	1924
tcctatgagc	ccggggcatg	atctgatccc	caagacatgt	ggaggggcag	cctgtgcctg	1984
cctttgtgtc	agaaaaagga	aaccacagtg	agcctgagag	agacggcgat	tttcgggctg	2044
agaaggcagt	agttttcaaa	acacatagtt	aaaaaagaaa	caaataaaaa	aaattttaga	2104
acagtccagc	aaattgctag	tcagggtgaa	ttgtgaaatt	gggtgaagag	cttaggattc	2164
taatctcatg	ttttttcctt	ttcacatttt	taaaagaaca	atgacaaaca	cccacttatt	2224
tttcaagggt	ttaaaacagt	ctacattgag	catttgaaag	gtgtgctaga	acaaggctctc	2284
ctgatccgtc	cgaggctgct	tcccagagga	gcagctctcc	ccaggcattt	gccaagggag	2344
gcggattttcc	ctggtagtgt	agctgtgtgg	ctttccttcc	tgaagagtcc	gtgggtgccc	2404
tagaacctaa	caccccctag	caaaactcac	agagctttcc	gtttttttct	ttcctgtaaa	2464
gaaacatttc	ctttgaactt	gattgcctat	ggatcaaaga	aattcagaac	agcctgcctg	2524
ttcccccgca	ctttttacat	atatttgttt	catttctgca	gatggaaaagt	tgacatgggt	2584
ggggtgtccc	catccagcga	gagagtttca	aaagcaaaac	atctctgcag	tttttcccaa	2644
gtaccctgag	atacttccca	aagcccttat	gtttaatcag	cgatgtatat	aagccagttc	2704
acttagacaa	ctttaccctt	cttgtccaat	gtacaggaag	tagttctaaa	aaaaatgcat	2764
attaattttct	tcccccaaag	ccggatttct	aattctctgc	aacactttga	ggacatttat	2824
gattgtccct	ctgggccaat	gcttataccc	agtgaggatg	ctgcagtgag	gctgtaaagt	2884
ggccccctgc	ggccctagcc	tgacccgag	aaaggatggg	agattctggt	aactcttgaa	2944
gactccagta	tgaaaatcag	catgcccgcc	tagttacctc	ccggagaggt	atcctgataa	3004
attaacctct	cacagttagt	gatcctgtcc	ttttaacacc	ttttttgtgg	ggttctctct	3064
gacctttcat	cgtaaagtgc	tggggacctt	aagtgatttg	cctgtaattt	tggtatgatta	3124

099-US1.ST25.txt

```

aaaaatgtgt atatatatta gctaattaga aatattctac ttctctgttg tcaaactgaa 3184
attcagagca agttcctgag tgcgtggatc tgggtcttag ttctggttga ttcactcaag 3244
agttcagtg tcatatcgat ctgctcattt tgacaaagtg cctcatgcaa ccgggccctc 3304
tctctgcggc agagtcctta gtggaggggt ttacctggaa cataagtagt taccacagaa 3364
tacggaagag caggtgactg tgctgtgcag ctctctaaat gggaattctc aggtaggaag 3424
caacagcttc agaaagagct caaaataaat tggaaatgtg aatcgcagct gtgggtttta 3484
ccaccgtctg tctcagagtc ccaggacctt gagtgtcatt agttacttta ttgaagggtt 3544
tagaccata gcagctttgt ctctgtcaca tcagcaattt cagaaccaa aggaggctc 3604
tctgtaggca cagagctgca ctatcacgag cctttgtttt tctccacaaa gtatctaaca 3664
aaaccaatgt gcagactgat tggcctggtc attggctctc gagagaggag gtttgccctgt 3724
gatttgccctg tgatttccta attatcgcta gggccaagggt gggatttgta aagctttaca 3784
ataatcattc tggatagagt cctgggaggt ccttggcaga actcagttaa atctttgaag 3844
aatatttgta gttatcttag aagatagcat gggagggtgag gattccaaaa acattttatt 3904
tttaaaatat cctgtgtaac acttggctct tggtagctgt gggtagcat caagttctcc 3964
ccagggtaga attcaatcag agctccagtt tgcatttgga tgtgtaaatt acagtaatcc 4024
catttcccaa acctaaaatc tgtttttctc atcagactct gagtaactgg ttgctgtgtc 4084
ataacttcat agatgcagga ggctcaggtg atctgtttga ggagagcacc ctaggcagcc 4144
tgcagggaat aacatactgg ccgttctgac ctgttgccag cagatacaca ggacatggat 4204
gaaattcccg tttcctctag tttcttctg tagtactcct ctttttagatc ctaagtctct 4264
tacaaaagct ttgaatactg tgaaaatgtt ttacattcca tttcatttgt gttgtttttt 4324
taactgcatt ttaccagatg ttttgatgtt atcgcttatg ttaatagtaa ttcccgtacg 4384
tgttcatttt attttcatgc tttttcagcc atgtatcaat attcacttga ctaaaatcac 4444
tcaattaatc aatgaaaaaa aaaaa 4469

```

```

<210> 2
<211> 313
<212> PRT
<213> Homo sapiens

```

```
<400> 2
```

```

Met Gly Ile Gly Arg Ser Glu Gly Gly Arg Arg Gly Ala Leu Gly Val
1           5           10          15

```

```
Leu Leu Ala Leu Gly Ala Ala Leu Leu Ala Val Gly Ser Ala Ser Glu
```

20

25

30

Tyr Asp Tyr Val Ser Phe Gln Ser Asp Ile Gly Pro Tyr Gln Ser Gly
 35 40 45

Arg Phe Tyr Thr Lys Pro Pro Gln Cys Val Asp Ile Pro Ala Asp Leu
 50 55 60

Arg Leu Cys His Asn Val Gly Tyr Lys Lys Met Val Leu Pro Asn Leu
 65 70 75 80

Leu Glu His Glu Thr Met Ala Glu Val Lys Gln Gln Ala Ser Ser Trp
 85 90 95

Val Pro Leu Leu Asn Lys Asn Cys His Ala Gly Thr Gln Val Phe Leu
 100 105 110

Cys Ser Leu Phe Ala Pro Val Cys Leu Asp Arg Pro Ile Tyr Pro Cys
 115 120 125

Arg Trp Leu Cys Glu Ala Val Arg Asp Ser Cys Glu Pro Val Met Gln
 130 135 140

Phe Phe Gly Phe Tyr Trp Pro Glu Met Leu Lys Cys Asp Lys Phe Pro
 145 150 155 160

Glu Gly Asp Val Cys Ile Ala Met Thr Pro Pro Asn Ala Thr Glu Ala
 165 170 175

Ser Lys Pro Gln Gly Thr Thr Val Cys Pro Pro Cys Asp Asn Glu Leu
 180 185 190

Lys Ser Glu Ala Ile Ile Glu His Leu Cys Ala Ser Glu Phe Ala Leu
 195 200 205

Arg Met Lys Ile Lys Glu Val Lys Lys Glu Asn Gly Asp Lys Lys Ile
 210 215 220

Val Pro Lys Lys Lys Lys Pro Leu Lys Leu Gly Pro Ile Lys Lys Lys
 225 230 235 240

Asp Leu Lys Lys Leu Val Leu Tyr Leu Lys Asn Gly Ala Asp Cys Pro
 245 250 255

099-US1.ST25.txt

Cys His Gln Leu Asp Asn Leu Ser His His Phe Leu Ile Met Gly Arg
260 265 270

Lys Val Lys Ser Gln Tyr Leu Leu Thr Ala Ile His Lys Trp Asp Lys
275 280 285

Lys Asn Lys Glu Phe Lys Asn Phe Met Lys Lys Met Lys Asn His Glu
290 295 300

Cys Pro Thr Phe Gln Ser Val Phe Lys
305 310